

Title (en)

HEAD CHIP, LIQUID JET HEAD AND LIQUID JET RECORDING DEVICE

Title (de)

KOPFCHIP, FLÜSSIGKEITSSTRAHLKOPF UND FLÜSSIGKEITSSTRAHLAUFEZEICHNUNGSVORRICHTUNG

Title (fr)

PUCE DE TÊTE, TÊTE À JET LIQUIDE ET DISPOSITIF D'ENREGISTREMENT À JET LIQUIDE

Publication

**EP 3450176 A1 20190306 (EN)**

Application

**EP 18191851 A 20180830**

Priority

JP 2017166724 A 20170831

Abstract (en)

There are provided a head chip, a liquid jet head, and a liquid jet recording device capable of enhancing the reliability. The head chip according to an embodiment of the disclosure includes a first plate having a plurality of pressure chambers adapted to apply pressure to a liquid, a second plate having a plurality of nozzle holes adapted to jet the liquid in response to application of the pressure, and a third plate disposed between the first and second plates, and provided with a plurality of through holes individually communicated with the plurality of pressure chambers and the plurality of nozzle holes, respectively. In the through hole, a second opening region opposed to the second plate is larger than a first opening region opposed to the first plate.

IPC 8 full level

**B41J 2/14** (2006.01); **B41J 2/16** (2006.01)

CPC (source: CN EP US)

**B41J 2/01** (2013.01 - CN); **B41J 2/07** (2013.01 - CN); **B41J 2/135** (2013.01 - CN); **B41J 2/14209** (2013.01 - EP US); **B41J 2/1433** (2013.01 - EP US); **B41J 2/18** (2013.01 - CN); **B41J 2002/14362** (2013.01 - EP US); **B41J 2002/14475** (2013.01 - EP US); **B41J 2202/08** (2013.01 - EP US); **B41J 2202/12** (2013.01 - EP US)

Citation (applicant)

JP 2006035454 A 20060209 - KONICA MINOLTA HOLDINGS INC

Citation (search report)

- [X] US 2008018679 A1 20080124 - KOJIMA TOSHIYA [JP]
- [X] JP 2016055543 A 20160421 - SII PRINTEK INC
- [X] EP 2891556 A1 20150708 - KYOCERA CORP [JP]
- [I] US 2006119663 A1 20060608 - TSUCHII KEN [JP]
- [A] JP 2017052214 A 20170316 - SII PRINTEK INC
- [A] WO 2017073668 A1 20170504 - KYOCERA CORP [JP]
- [A] EP 2130677 A1 20091209 - SII PRINTEK INC [JP]
- [A] JP 2016074188 A 20160512 - ROHM CO LTD
- [A] JP 2006224456 A 20060831 - SHARP KK
- [A] JP H10157119 A 19980616 - CANON KK

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

**EP 3450176 A1 20190306**; **EP 3450176 B1 20210922**; CN 109421369 A 20190305; CN 109421369 B 20210312; JP 2019042979 A 20190322; JP 6961426 B2 20211105; US 10500855 B2 20191210; US 2019061350 A1 20190228

DOCDB simple family (application)

**EP 18191851 A 20180830**; CN 201811013513 A 20180831; JP 2017166724 A 20170831; US 201816117607 A 20180830